

What are the Chances of a White Christmas?

At this time of year many often wonder how likely it is that we will have a White Christmas. The answer to this question varies depending on location and how one defines a White Christmas. The most widely accepted definition in the meteorological community is at least one inch of snow on the ground on Christmas morning; however some people consider a deeper snow pack necessary, or define a White Christmas as snow actually falling on the holiday. Following are the odds of a White Christmas in any given year, compiled from historical weather records, for various definitions at both Des Moines and Waterloo. ***This should not be interpreted as a forecast specifically for Christmas of 2012, as these are percentages derived only from the historical records.***

Des Moines

Climate records at Des Moines date back to August of 1878, but snowfall records did not begin until December of 1884. That yields 128 Christmases (1884-2011) of snowfall data from which the following percentages were computed:

Percentage of Christmases with -

At least 1" of snow on the ground on Christmas morning: 41%

At least 2" of snow on the ground on Christmas morning: 28%

Any snow falling on either Christmas Eve or Christmas Day: 62%

Measurable snow (at least 0.1") falling on either Christmas Eve or Christmas Day: 34%

Waterloo

Climate records at Waterloo date back to February of 1895. That yields 117 Christmases (1895-2011) of snowfall data from which the following percentages were computed:

Percentage of Christmases with -

At least 1" of snow on the ground on Christmas morning: 58%

At least 2" of snow on the ground on Christmas morning: 40%

Any snow falling on either Christmas Eve or Christmas Day: 48%

Measurable snow (at least 0.1") falling on either Christmas Eve or Christmas Day: 29%